

### REMARKS/ARGUMENTS

Reconsideration and re-examination are hereby requested.

With regard to the IDS filed 11/04/2004, the IDS statement included therein the following statement:

The attached Form PTO/SB/08A lists two references, one entitled "Power Measurement Basics" and the other entitled "Coplanar Waveguides Supported by InGaP and GaAs/AlGaAs Membrane-Like Bridges." These two references should be considered as prior art known to the Applicants at the time the Applicants made their invention. (emphasis added)

It is respectfully requested that the two references be considered by the Examiner "as prior art known to the Applicants at the time the Applicants made their invention".

The claims stand rejected as being either anticipated by, or obvious in view of Haimson (U. S. Patent No. 4,713,518). The Examiner takes the position that element 12 is a Wheatstone Bridge. It is first noted that at column 7, line 3, Haimson indicates that element 12 is "an RF bridge network". Reference is made to Haimson column 1, lines 18-42:

Travelling wave linear accelerators have been disclosed in the past wherein feedback of the remnant RF power from the output of the linear accelerator is combined in suitable phase relationship with input power from the RF source using an RF bridge. With proper phase conditions, the RF power entering the accelerator can be increased above that available from the source by a factor which depends upon the total attenuation in the feedback loop and upon the RF bridge ratio. Such systems are disclosed by R. B. R. Shersby-Harvie and L. B. Mullett in "A Travelling Wave Linear Accelerator With R.F. Power Feedback, and An Observation of R.F. Absorption by Gas in Presence of a Magnetic Field," Proceedings of the Physical Society, pages 270-271, Feb. 3, 1949, and P. M. Lapostolle and A. L. Septier, "Linear Accelerators," North-Holland Publishing Company, Amsterdam, pages 56-60 (1970).

A variety of RF bridge circuits, suitable for this feedback application, include coaxial and waveguide hybrid junctions, short branch couplers, coaxial and waveguide hybrid rings, etc., each of which can be represented as an eight terminal network arranged so that the following specific conditions are satisfied. Assuming four transmission lines connected to an RF bridge, as shown in FIG. 1, (a) arms 1 and 3 should be independently matched to the bridge when arms 2 and 4 are terminated by their characteristic impedances; (b) a high degree of isolation should exist between arms 1 and 2 so that power fed into either arm 1 or arm 3 is transmitted to loads in arms 2 and 4 only; (c) conversely, arms 2 and 4 should be balanced with respect to each other so that RF power entering either arm is delivered to loads at arms 1 and 3 only; and (d) there should be no power circulating within the bridge.(emphasis added)

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A description of a Wheatstone bridge is enclosed, such being a section from a book entitled: University Physics by Francis Weston Sears and Mark W. Zamansky, published 1956, section 28-7, pages 499-500. It is clear that the RF bridge 12 described in Haimson (U. S. Patent No. 4,713,518 is not a Wheatstone bridge. For Example, one RF bridge described in the article "A Travelling Wave Linear Accelerator With R.F. Power Feedback, and An Observation of R.F. Absorption by Gas in Presence of a Magnetic Field," is a rat race shown in Figure 2 of the article. Such is clearly not a Wheatstone bridge.

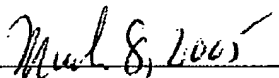
Thus, it is respectfully submitted that original claims 1-13 are not anticipated by, or obvious in view of, Haimson (U. S. Patent No. 4,713,518.

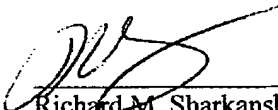
New claims 14-22 have been drafted and recite a network which is clearly not the RF bridge referred to in Haimson (U. S. Patent No. 4,713,518.

In the event a petition for extension of time is required by this paper and not otherwise provided, such petition is hereby made and authorization is provided herewith to charge deposit account No. 50-3192 for the cost of such extension.

In the event any additional fee is required, please charge such amount to Patent and Trademark Office Deposit Account No. 50-3192.

Respectfully submitted,

  
Date

  
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